

## EDUCATION

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2009.09-2013.06 B.S. Department of Earth Sciences, National Central University, Taiwan (NCU)

• GPA: 3.5/4.0 Rank:13/46

2013.09-2015.06 M.S. (Geophysics) Department of Earth Sciences, National Central University, Taiwan

• GPA: 4.0/4.0 Rank:1/24

• Advisers: Prof. Dr. Chien-chieh Chen and Prof. Dr. Po-Fei Chen

• Thesis: Probabilistic tsunami hazard analysis (PTHA) of Taiwan region by stochastic model

## PROJECTS

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**From Institute of Nuclear Energy Research, Atomic Energy Council, Executive Yuan, Taiwan**

2013-2014: Probabilistic tsunami hazard analysis (PTHA) for Taiwan nuclear power plants (I. Seismic source)

2015-2016: Probabilistic tsunami hazard analysis (PTHA) for Taiwan nuclear power plants (II. Earthquake induced submarine landslides)

2016: Fault deformation and simulation of scenario earthquake (I. Chi-Chi earthquake)

2017: Fault deformation and simulation of scenario earthquake (II. Ryukyu trench)

**From Central Weather Bureau, Taiwan**

2016: A study on geoelectric phenomena related to earthquakes

## EXPERIENCE AND EXPERTISE

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2013: Teaching assistance Applied Mathematics

2014: Teaching assistance Geophysics I: Seismology and Applied Mathematics

2015: Teaching assistance Geophysics II

2015-2018: Research and Development Substitute Services (Research assistant): National Conservation Agency, Ministry of the Interior and National Central University, Taiwan

Develop: 1. Short-Term Probabilistic Seismic Hazard Analysis for Taiwan (website)

[http://pixiulab.com/earthquake\\_danger.php](http://pixiulab.com/earthquake_danger.php)

2. Fund-Trend app (iOS and Android, investment analysis, <http://www.pixiulab.com/fund/>)

**Expertise:** MATLAB

## PUBLICATIONS

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**Sun, Y.-S.\***, H.-C. Li, L.-Y. Chang, Z.-K. Ye, H.-J. Chen, and C.-C. Chen. (2019). Real-time probabilistic seismic hazard assessment based on seismicity anomaly, *Nat. Hazards Earth Syst. Sci. Discuss.*, <https://doi.org/10.5194/nhess-2019-167>, under review

**Sun, Y.-S.\***, P.-F. Chen, C.-C. Chen, Y.-T. Lee, K.-F. Ma, and T.-R. Wu (2018). Assessment of the peak tsunami amplitude associated with a large earthquake occurring along the southernmost Ryukyu subduction zone in the region of Taiwan, *Nat. Hazards Earth Syst. Sci.* 18 2081-2092. <https://doi.org/10.5194/nhess-18-2081-2018>

Lee, Y.-T.\*, K.-F. Ma, M.-C. Hsieh, Y.-T. Yen, and **Y.-S. Sun** (2016). Synthetic Ground-Motion Simulation Using a Spatial Stochastic Model with Slip Self-Similarity: Toward Near-Source Ground-Motion Validation, *Terr. Atmos. Ocean. Sci.*, 27 397-405. doi:10.3319/TAO.2015.11.27.01(TEM)

**Sun, Y.-S.**, L.-C. Sun, and C.-c. Chen\* (2013). Assessment of Landslide Risk Based on the Non-Extensive Tsallis Entropy, *J. Disaster Management 2*: 41-49 (in Chinese with English abstract). doi:10.6149/JDM.2013.0201.03

Chen, C.-c.\*, L. Telesca, C.-T. Lee, and **Y.-S. Sun** (2012). Reply to the Comment by L. P. Li et al, *EPL* 100 29002. doi:10.1209/0295-5075/100/29002

Chen, C.-c.\*, L. Telesca, C. T. Lee, and **Y.-S. Sun** (2011). Statistical physics of landslides: New paradigm, *EPL* 95 49001. doi:10.1209/0295-5075/95/49001

## AWARDS AND HONORS

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2009-2013 Research Assistant scholarship, NCU (~ US\$130 per month)

2011 Rising Star Award, National Earth Sciences Research Competition, Taiwan

2012 Outstanding Award, National Earth Sciences Research Competition, Taiwan

2012 Earth Sciences Information Program certificate, NCU

2013-2015 Research Assistant scholarship, NCU (~ US\$325 per month)

2014 Ministry of Science and Technology, Taiwan, R.O.C. Supporting Funds to AGU (~US\$1830)

2015 Excellent Student Scholarship, NCU (~ US\$650)

2015 Outstanding Student Paper Award, Joint Annual Meeting of Geological Society and Geophysical Society, Taiwan

## CONFERENCES

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- Sun, Y.-S.**, H.-C. Li, H.-J. Chen, L.-Y. Chang, C.-C. Chen, and Zheng-Kai Ye (2018) Short-Term Probabilistic Seismic Hazard Analysis for Taiwan. Joint Annual Meeting of Geological Society and Geophysical Society, Taiwan (Poster)
- Sun, Y.-S.**, C.-C. Chen, H.-C. Li, L.-Y. Chang, H.-J. Chen, and Z.-K. Ye (2017). Joint algorithm of multiple forecast models. Japan Geoscience Union-American Geophysical Union (AGU) Joint Meeting (Poster)
- Lee, Y.-T., K.-F. Ma, M.-C. Hsieh, Y.-T. Yen, and **Y.-S. Sun** (2017). Synthetic ground-motion simulation using a spatial stochastic model with slip self-similarity. Japan Geoscience Union-American Geophysical Union (AGU) Joint Meeting.
- Lee, Y.-T., K.-F. Ma, M.-C. Hsieh, Y.-T. Yen, and **Y.-S. Sun** (2015). The self-similarity in heterogeneity of slips on a finite-fault: Toward near fault motion validation. Joint Annual Meeting of Geological Society and Geophysical Society, Taiwan
- Sun, Y. S.**, P.-F. Chen, C.-C. Chen (2015) Probabilistic tsunami hazard analysis (PTHA) of Taiwan region by stochastic model. Joint Annual Meeting of Geological Society and Geophysical Society, Taiwan (Poster)
- Sun, Y. S.**, P.-F. Chen, C.-C. Chen (2014) Probabilistic tsunami hazard analysis (PTHA) of Taiwan region by stochastic model. American Geophysical Union (AGU) fall meeting (Poster)
- Sun, Y. S.**, and C.-C. Chen (2012) Assessment of Landslide Risk Based on the Non-Extensive Tsallis Entropy. Joint Annual Meeting of Geological Society and Geophysical Society, Taiwan (Oral)

## Affiliations

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- 2012-present Geophysical Society, Taiwan: member  
2014 American Geophysical Union: member  
2017 Japan Geoscience Union: member